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1637  
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PTO/SB/17 (01-03)

Approved for use through 04/30/2003. OMB 0651-0032

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FEE TRANSMITTAL for FY 2003 <small>Patent fees are subject to annual revision.</small>		Complete if Known	
<input checked="" type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Application Number	09/674,090
TOTAL AMOUNT OF PAYMENT (\$)		Filing Date	March 1, 2001
180.00		First Named Inventor	Yoav Eichen
		Examiner Name	J. Siew
		Group Art Unit	1637
		Attorney Docket No.	I8363.0002/P002

METHOD OF PAYMENT (check all that apply)		FEE CALCULATION (continued)	
<input type="checkbox"/> Check	<input checked="" type="checkbox"/> Credit Card	3. ADDITIONAL FEES	
<input type="checkbox"/> Money Order	<input type="checkbox"/> Other		
<input type="checkbox"/> None			
Deposit Account			
Deposit Account Number			
04-1073			
Deposit Account Name			
Dickstein Shapiro Morin & Oshinsky LLP			
The Commissioner is hereby authorized to: (check all that apply)			
<input type="checkbox"/> Charge fee(s) indicated below			
<input checked="" type="checkbox"/> Credit any overpayments			
<input type="checkbox"/> Charge any additional fee(s) during the pendency of this application			
<input type="checkbox"/> Charge fee(s) indicated below, except for the filing fee			
to the above-identified deposit account.			

FEE CALCULATION	
1. BASIC FILING FEE	
Large Entity	Small Entity
Fee Code	Fee Code
Fee (\$)	Fee (\$)
Fee Description	Fee Paid
1001 750	2001 375
Utility filing fee	
1002 330	2002 165
Design filing fee	
1003 520	2003 260
Plant filing fee	
1004 750	2004 375
Reissue filing fee	
1005 160	2005 80
Provisional filing fee	
SUBTOTAL (1) (\$)	
0.00	
2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE	
Total Claims	
Independent Claims	
Multiple Dependent	
Extra Claims	
Fee from below	
Fee Paid	
Large Entity	
Small Entity	
Fee Code	Fee Code
Fee (\$)	Fee (\$)
Fee Description	Fee Paid
1202 18	2202 9
Claims in excess of 20	
1201 84	2201 42
Independent claims in excess of 3	
1203 280	2203 140
Multiple dependent claim, if not paid	
1204 84	2204 42
** Reissue independent claims over original patent	
1205 18	2205 9
** Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2) (\$)	
0.00	
**or number previously paid, if greater; For Reissues, see above	

SUBMITTED BY		Complete (if applicable)	
Name (Print/Type)	Peter McGee	Registration No. (Attorney/Agent)	35,947
Signature		Telephone	(202) 828-2211
		Date	May 14, 2003

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Docket No.: I8363.0002/P002  
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:  
Yoav Eichen

Application No.: 09/674,090

Group Art Unit: 1637

Filed: March 1, 2001

Examiner: Jeffrey Siew

For: DETECTION OF A TARGET IN A  
SAMPLE BY MEASURING  
CONDUCTANCE OF A SUBSTANCE  
GROWN FROM NUCLEATION  
CENTER-FORMING MOIETIES

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
Washington, DC 20231

Dear Sir:

Pursuant to 37 CFR 1.56, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Rejection or Notice of Allowance.

While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR 1.56, it is not intended to constitute an

Application No.: 09/674,090

Docket No.: I8363.0002/P002

admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

Please charge our Credit Card in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p). Credit Card Payment Form SB-2038, with a signature from an authorized cardholder, is enclosed. The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under Order No. I8363.0002/P002.

Dated: May 14, 2003

Respectfully submitted,

By 

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Registration No. 31,063

Peter McGee

Registration No.: 35,947

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Attorneys for Applicant



PTO/SB/08A (10-01)  
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Substitute for form 1449A/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>		
				Application Number	09/674,090	
				Filing Date	March 1, 2001	
				First Named Inventor	Yoav Eichen	
				Art Unit	1637	
				Examiner Name	Jeffrey Siew	
Attorney Docket Number	18363.0002/P002					
Sheet	1	of	3			

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U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		3,833,894	9-1974	Aviram et al.	
		5,063,417	11-1991	Hopfield	
		5,089,545	2-1992	Pol	
		5,561,071	10-1996	Hollenberg et al.	
		5,707,845	1-1998	Ueyama et al.	
		5,946,550	8-1999	Papadimitrakopoulos	
		5,445,934	8-1995	Fodor et al.	
		5,653,939	8-1997	Hollis et al.	
		5,739,308	4-1998	Kandimalla et al.	
		5,770,369	6-1998	Meade et al.	
		5,787,032	7-1998	Heller et al.	
		5,824,473	10-1998	Meade et al.	
		5,837,546	11-1998	Allen et al.	
		5,858,659	1-1999	Sapolsky et al.	
		5,874,046	2-1999	Megerle	
		5,876,976	3-1999	Richards, et al.	
		5,891,630	4-1999	Eggers et al.	
		6,060,023	4-2001	Maracas	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				
		WO 98/53841	12-1998	WIPO		
		WO 99/04440	1-1999	WIPO		
		WO 99/29711	6-1999	WIPO		
		WO 99/35256	7-1999	WIPO		
		WO 99/36573	7-1999	WIPO		

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				Examiner Name	Jeffrey Siew
				Attorney Docket Number	18363.0002/P002
Sheet	2	of	3		

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Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		6,051,380	4-2000	Sosnowski et al.	
		6,071,699	6-2000	Meade et al.	
		6,093,370	7-2000	Yasuda et al.	
		6,210,880	4-2001	Lyamichev	
		6,399,303	6-2002	Connolly	
		US2002/0182608 A1	12-2002	Connolly	

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Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)			
		WO 93/25003	12/1993	WIPO	
		WO 94/05045	3/1994	WIPO	

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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Chen et al., "Synthesis from DNA of a Molecule With the Connectivity of a Cube," <u>Nature</u> , 350:631-633 (1991)	
		Mirkin et al., "A DNA-Based Method of Rationally Assembling Nanoparticles Into Macroscopic Materials", <u>Nature</u> , 382:607-609 (1996)	
		Alivisatos et al., "Organization of 'Nanocrystal Molecules' Using DNA," <u>Nature</u> , 382:609-11 (1996)	
		Braun et al., "DNA-Templated Assembly and Electrode Attachment of a Conducting Silver Wire," <u>Nature</u> , 391:775-778 (1998)	
		J. L. Coffer et al., "Dictation of the Shape of Mesoscale Semiconductor Nanoparticle Assemblies by Plasmid DNA", <u>Appl. Phys. Lett.</u> 69 (25), December 16, 1996, pp.3851-3853	
		D. B. Hall, et al., "Oxidative DNA Damage Through Long-Range Electron Transfer", <u>NATURE</u> , Vol. 382, August 22, 1996, pp. 731-735	
		S.N. Size, "Physics of Semiconductor Devices, 2nd Ed., pp. 349, 490-495	
		Klein et al., "An Approach to Electrical Studies of Single Nanocrystals," <u>Appl. Phys. Lett.</u> , 68 (18):2574-2576 (1996)	
		Sato et al., "Single Electron Transistor Using A Molecularly Linked Gold Colloidal Particle Chain," <u>J. Appl. Phys.</u> 82 (2) : 696-701 (1997)	



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<b>Sheet</b>	<b>3</b>	<b>of</b>	<b>3</b>		

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<b>Examiner Initials</b>	<b>Cite No.<sup>1</sup></b>	<b>Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.</b>
		Grabner et al., "Kinetic Control of Interparticle Spacing in Au Colloid-Based Surfaces: Rational Nanometer-Scale Architecture," J. Am. Chem. Soc., 118:1148-1153 (1996)
		Ackley, et al., "DNA Technology for Optoelectronics", IEEE, April 1998

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